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|  | **Questioning** | **Exploration** | **Tools** | **Reflection** |
| 4 | Exhibits an active intellectual curiosity that manifests itself in asking powerful, targeted questions that grow from an understanding of basic concepts and a clear engagement with learning; independently translates curiosity into active investigation. | Formulates creative and effective strategies for finding answers, through research and experimentation; demonstrates sophistication in analyzing collected data, evaluating the validity and usefulness of sources, and drawing insightful conclusions. | Uses the tools of inquiry effectively, developing sophisticated techniques for searching for information and applying both accepted and creative techniques to experiments and research; revises experimental and research strategies as circumstances require. | Reflects with probing insight on the answers reached, finding strengths and weakness of methods, identifying lessons learned, and using insights gained to spark new ideas and ask new questions. |
| 3 | Demonstrates an active curiosity, though questions show a lower level of sophistication; with encouragement, can apply curiosity to active investigation. | Formulates effective strategies for finding answers; demonstrates skill in analyzing and evaluating data; draws defensible and useful conclusions. | Uses the established tools of inquiry effectively, but may make errors in technique and analysis; revises strategies minimally, as circumstances require. | Considers the process and product of inquiry in basic ways; uses conclusions to spark related new ideas. |
| 2 | Usually demonstrates curiosity and engagement, but rarely asks probing questions to deepen or extend learning; is reluctant to take concrete steps to satisfy curiosity. | Requires significant assistance in designing strategies for inquiry, or abandons such strategies in mid-effort; and/or has difficulty analyzing and evaluating data; and/or draws inappropriate conclusions. | Needs significant guidance in using the tools of inquiry; when working independently, often makes errors in technique and analysis; rarely revises, except when facing drastic problems. | When prompted, can discuss the process and product of inquiry; has difficulty extending learning in new directions or asking new questions. |
| 1 | Demonstrates little curiosity, rarely asks questions, and appears to be unengaged with the learning process; fails to undertake investigations based on questions that arise. | Plunges into research without defining a strategy, working randomly in collecting data, and/or fails to consider the validity and usefulness of sources or conclusions. | Has great difficulty designing research and experimental strategies, from beginning to end; efforts at inquiry yield inappropriate or useless information. | Believes that work is done when the project is completed; fails to self-assess either process or product; does not extend learning. |